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**Lessons from Labor Adjustment to the East Asian Crisis:
The Case of South Korea, Thailand and Indonesia**

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CRISIS: THE CASE OF SOUTH KOREA, THAILAND AND
INDONESIA

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Abstract

The sometimes unexpected social effects of the Asian economic crisis suggest the importance of links between macroeconomic adjustment and labor demand, and differences in the flexibility of the labor market (both price and quantity adjustments) related to both economic structure and labor market institutions. The paper contrasts the experience of three economies, all of which were deeply influenced by the crisis: South Korea, Thailand and Indonesia. It argues that the Korean labor market experienced greater quantity adjustment (rapidly rising rates of unemployment) rather than changes in wages. The Korean experience was different partly because of greater regulation of the labor market from the mid 1980s. Its more industrialized economy also constrained labor mobility. Indonesia was quite different because of its much larger traditional sectors and large price increases in non-tradable goods, in addition to the rise in domestic prices of tradable goods associated with the depreciation. The labor market adjustment in Indonesia was mainly in terms of adjustment in wages (price) rather than employment. Displaced workers were, moreover quickly absorbed into alternative jobs. The process of adjustment in Thailand lay somewhere in between the other two cases: there was significant adjustment in both the quantity and price of labor during 1998 and 1999.

LESSONS FROM LABOUR ADJUSTMENT TO THE EAST ASIAN CRISIS: THE CASE OF SOUTH KOREA, THAILAND AND INDONESIA¹

Chris Manning

I. INTRODUCTION

The severe economic crisis which hit Asia in 1998 had a large impact on labour markets through job losses and falling real wages. However, while there were similarities in the response of different countries to the shock, there were also some important differences. In this paper, it is argued that the dissimilarities depended partly on labour market institutions and processes, and partly on stage in economic development. Three countries, South Korea, Thailand and Indonesia, all at different stages of economic development, are taken as case studies to illustrate these points.

The paper is structured as follows. The second section discusses some general aspects labour market adjustment to economic shocks. The third looks at economic growth and labour market change during the boom period of the 1990s before the economic crisis. This provides a context for discussing the impact of the crisis. In the fourth we look at the impact of the crisis on the economies and labour markets of the three countries. The fifth then examines, in a qualitative way, the response patterns of each country and associated institutional factors that contributed to labour market outcomes. A brief, preliminary, conclusion is presented in the final section.

II. SOME GENERAL CONSIDERATIONS

It has been argued that the one factor contributing to rapid economic growth and broad distribution of the benefits of growth has been the flexibility of labour markets in East Asia, in contrast to the situation in Latin America. Edwards and Lustig (1998: 2) suggest, for example, that: “..East Asian economic success largely resulted from a significant degree of labor market flexibility that has allowed small and medium-sized firms to adapt rapidly to new market conditions, remain competitive internationally and take advantage of technological advances.”²

Cortazar, Lustig and Sabot (1998) argue, in a similar vein, that growth with equity was served well in the East Asian case by both deregulation of trade and less regulated labour markets. This flexibility also helped countries adapt to crisis, although important differences between individual East Asian countries have been highlighted in some studies (Mazumdar, 1993).

¹ This paper was first presented at 7th Convention of the East Asian Economic Association 17-18 November 2000, Singapore

² See also Krueger (1990), Mazumdar (1993), World Bank (1993 and 1995), and Fields (1994) for similar viewpoints.

What were the central elements of this flexibility? Three, in particular, have been emphasized in the literature:

- Flexible employment through the hiring of contract employees and sub-contracting arrangements, combined with an absence of regulation which limit a firms freedom to fire or retrench workers
- Flexible hours of work, chiefly through allowing (requiring) employees to work long hours during periods of peak demand
- Flexible wages partly as a result of piece rate (results-based) systems of remuneration and more generally through the widespread use of bonuses and incentive payments to help boost productivity and tie wages closely to productivity. Such flexibility can be constrained by the general economic environment, lack of competitive pressures between firms, or by institutional factors such as minimum wage legislation and trade union activities.

In addition, the institutional environment encouraged flexibility compared with many countries in Latin America. Thus, it is suggested that trade unions, which were tightly controlled in most East Asian countries, were undermined by the success of development policies. Cortazar, Lustig and Sabot (1998: 199) argue, for example, that: “Workers did so well that there was less incentive to use the collective power of labor to push up wages or expand employment opportunities beyond those justified by the derived demand for labor.”

The discussion of labour market flexibility in East Asia has mainly focussed on responses to rapid expansion in labour demand, although some authors have also paid attention to the impact of economic shocks on the labour market.³ The Asian economic crisis is, however, perhaps the first real opportunity to test the East Asian ‘flexibility’ proposition under conditions of contracting labour demand, which plagued much of Latin America during the 1980s.

There are three elements of flexibility which might be tested in the Asian crisis case:

- The extent to which the cut-back in derived demand impacted on the price of labour rather than its quantity, that is on wages rather than employment.
- The extent to which the change in relative prices resulting from the crisis encouraged inter-sectoral labour shifts between tradable and non-tradable goods sectors, the so-called ‘switching effect’ (Corden, 1994; Edwards and Edward, 1994).
- The extent to which workers displaced from jobs were able to find alternative employment rather than suffer open unemployment or under-employment.

This paper marks a preliminary effort to assemble data on the main characteristics of labour market adjustment in three East Asian countries. It sets out the main elements of the adjustment of labour markets during the boom period before the crisis and then during the crisis. We do not attempt at this stage to provide a rigorous analysis of competing hypotheses regarding labour market flexibility. Nevertheless, it is argued that there were

³ For example, Mazumdar (1993) argues that a more flexible labour market helped South Korea adjust to economic shocks in the 1980s much more smoothly than Malaysia.

some important contrasts in the in the labour market response to the crisis between the three countries. These suggest that both institutional factors and stage of development help explain different labour outcomes in East Asia during the crisis.

III. LABOUR MARKETS IN THE BOOM

In part, an understanding of the labour market response depends on the nature of economic structure on the eve of the crisis and change in the years immediately preceding it. Similarities and difference in economic structure between the three countries (and contrasts with many other developing countries) help explain some common and contrasting features of the labour market response. I look first at economic structure and then some underlying patterns during the 1990s.

Economic and Labour Market Structures on the Eve of the Crisis

Just prior to the crisis, the similarities in the shares of GDP by industry were quite remarkable in the three countries given the differences in living standards (Table 1). The export/GDP ratio was also similar, although manufacturing accounted for a lower share of total exports in Indonesia. As might be expected, Korea (per capita income just over \$10,000, and \$13,400 in PPP terms) had a smaller share of GDP in agriculture and a much higher share in services in 1997 compared with the other two countries. Indonesia's high percentage of GDP in manufacturing (well above even the share for all middle income countries) and low share in agriculture was unusual for a country with a per capita income of just over \$1000 (\$3,400 in PPP terms). This reflects the relative capital- and resource-intensive nature of Indonesian industry, partly related to factor endowments and partly to heavy protection accorded to Soeharto cronies and family in major chemical and machinery industries (Hill, 1999).

Nevertheless, there were also two striking contrasts, which help explain very large differences in per capita income. The distribution of the work force by sector was one. Whereas only 11% of Koreans worked in agriculture, an estimated half of all Thais and 40% of Indonesians were employed in the same sector in 1997. Differences in the share of employment in agriculture were counterbalanced by a much higher percentage of Koreans involved in manufacturing. The contrast with GDP shares was marked. Thus, lower per capita incomes in Thailand and Indonesia can be attributed to the low productivity of a much higher share of workers still employed in agriculture.

Second, average wages in Korea were some 15 times those in Indonesia in 1997 and five times those in Thailand in manufacturing. Differences in average labour productivity in manufacturing were much smaller in Korea than in the other two countries. One explanation would seem to be superior levels of human capital in Korea, partly reflected in higher school and university enrolment rates (see second last row of the table).

It should be noted, nevertheless, that the differences in economic and social structure suggested by several of the above indicators do not altogether help us understand much

higher per capita incomes in Thailand compared with Indonesia. Not only were shares of GDP remarkably similar across industries. The distribution of employment was counter intuitive: a higher percentage of Thais were still engaged in agriculture compared with a larger share of employment in services and in wage employment in Indonesia. At a glance, from the data in table 1, it seems that higher per capita incomes and wage rates in Thailand might partly be explained by superior productivity in self-employed work in agriculture, and a more internationally competitive manufacturing sector. This was in contrast to significant crowding into wage employment (much of it in services) in Indonesia (Manning, 1998).

Growth and Labour Market Change in the 1990s

How did the three economies fare just before the crisis? On the face of it, the main story is buoyant economic growth in all countries, according to the most common indicators of comparative international economic performance. Table 2 presents data on some of these indicators for the three economies. GDP and industry growth were well above the average for middle income countries in 1990-95 in all three economies. Annual growth in GDP exceeded 5% in all three by a considerable margin, and industry growth was closer to 10% in Thailand and Indonesia. This contrasts with an actual decline in average GDP in lower middle income, and only a slight rise in lower income and upper middle income countries, in the same period.⁴ Only in East Asia were sustained growth rates of output of this magnitude achieved widely (in most countries in the region), in the same period.⁵

As is well known, three factors underpinned rapid economic growth, as in several other East Asian countries: the very high GDI/GDP ratio (30-40%), more rapid growth in exports and imports than GDP and the large and growing inflow of FDI from the early 1990s. Two caveats are worth adding: Indonesia lagged slightly behind the other two countries on several of these indicators. Second, warning bells sounded in Thailand in 1996, the year before the crisis, when the value of exports unexpectedly turned negative.⁶

But, from trends in the real economy, there were few signs in 1996 that all three countries were about to experience a major crisis. In addition, nominal exchange rates and consumer prices were relatively stable and real interest rates low by developing country standards through to the mid 1990s (Table 3).⁷

⁴ Similarly, industry grew much less quickly elsewhere in the developing world, save East Asia. Comparable rates of GDP growth, according to the World Bank classification were -1.5% for lower middle income countries, 2.3% for upper middle income countries and 6% for low income countries (2.3% outside China and India). All countries in the Latin America, the Middle East and Africa averaged around 2% growth in the same period (World Bank, World Development Indicators, Table 4.1).

⁵ In the three years before the crisis, the NIEs (Hong Kong and Taipei China, Singapore and Korea) and Southeast Asia as a group grew at just over 7% and just under 8% respectively, very similar to the average for our three countries. PRC China was the outlier, recording growth of well above 10%.

⁶ Electronics exports fell in a number of countries in 1996, reportedly in response to increased international competition in this industry.

⁷ Again Indonesia performed slightly worse than the other three countries both in trends in nominal exchange rates (to the US\$) and inflation.

How were labour markets affected? The Korean labour market had been transformed much earlier than the two other countries and faced large labour shortages from the early 1990s.⁸ The major labour market challenge in this economy was to adapt to an increasingly technologically sophisticated and service-led economy on the one hand, and to maintain flexibility in the face of more aggressive trade unions and expectations of greater worker protection than in the past (Park, Y-B, 1993; Lee, Ju-Ho and Kim, D-I, 1997; OECD, 1996).

On the other hand, Thailand and Indonesia (to a lesser extent) were trying to cope with an accelerated labour market transition, as the supply of unskilled labour became increasingly scarce in the 1990s. Labour shortages had begun to emerge as policy issue in agriculture and manufacturing (Sussangkarn, 1994; Manning, 1998). Since both countries had depended largely on mobilising unskilled labour to support export growth, the improvement human resources necessary for a shift towards more skill- and capital-intensive investment, was a more pressing challenge than in Korea..

Nevertheless, four developments are of major relevance (Table 4):⁹

- From the labour supply side, growth had slowed from above three per cent in the 1970s and 1980s. The transition was dramatic in Thailand. Korea and Indonesia faced a slow-down as a result of declining numbers of young people (especially males) entering the work force, largely as a result of declining birth rates.¹⁰ The employment of foreign workers was one response to shortages in labour supply of unskilled labour in agriculture, small-scale industry, construction and services in Korea and Thailand (Athukorala and Manning, 1999).¹¹ However, neither Korea or Thailand adopted a coherent policy towards foreign workers. The majority in both countries were illegal when the financial crisis broke in 1997.
- Second, Thailand and Indonesia experienced a substantial decline in the percentage of agricultural employment in the 1990s. The manufacturing share of all jobs had grown rather slowly by middle income East Asian standards and most new workers went into services. Korea, on the other hand, where the agricultural work force was already small by 1990, had begun to experience an absolute decline in the number of workers in manufacturing as the economy moved into high-tech manufacturing and services.

⁸ It is estimated, for example, that the 'turning point' when unskilled labour became generally scarce occurred around 1975 in South Korea, well before either Thailand or Indonesia had begun on the path of export-oriented economic growth (Bai, 1985).

⁹ See especially Manning (1999) for a discussion of some of these patterns in a broader East Asian context.

¹⁰ Korea had been able to maintain labour force growth rates partly by encouraging women and older people to enter the labour market (Park Y-B, 1994). Female labour force participation rates rose in all three countries from the mid 1980s.

¹¹ Indonesia on the other hand remained a labour exporter, principally to neighbouring Malaysia in the 1990s. With the revaluation of the won in the mid to late 1980s, widening wage differentials between the Korea and less developed East Asian countries increased incentives for illegal and legal cross-border movement, a process which was supported by more intensive capital flows within the region.

- Unemployment rates were generally low by international standards, although they had shown a tendency to rise in Indonesia during the 1990s.¹² In both Korea and Thailand unemployment was around 2-3%, and under-employment was similarly low.
- Finally, real wages rose steeply in all countries, on average by around 6-7% per annum (see the last two rows in Table 4). The combination of expanding demand for labour and slower labour supply growth was beginning to impact on the incomes of less skilled workers and undoubtedly contributed to a steep fall in poverty incidence in all three countries (Asian Development Bank, 2000: 179-82).
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Real wage growth (nominal wages deflated by the CPI) for the period 1990-1996 in all sectors is shown in Table 5. It is clear from the table that wage growth occurred broadly across all sectors. Tradable goods wages tended to grow more rapidly, even in agriculture in Thailand and Indonesia, but only slightly more so than non-tradable goods sectors.¹³ The period of relative labour surplus of earlier periods was clearly over in Thailand and Indonesia. Whereas the main adjustment in the labour market had been through absorption of new labour force entrants and agricultural workers into new activities at relatively constant real wage rates in the 1980s, by the 1990s real wages had grown quite rapidly as labour moved out of agriculture and into manufacturing and services.

- Partly as a result of rising real earnings, unit labour costs rose in all countries before the crisis.¹⁴ The increase was especially marked in Thailand where wage growth exceeded growth in labour productivity by a considerable margin, and $dW-dV$ increased at a very rapid rate of five per cent per annum in the period 1990-96 (Table 6). Nominal exchange rate adjustments tended to compensate for this increase in labour costs in Korea and Indonesia. But this was not the case in Thailand where there was a considerable appreciation of the real exchange rate partly as a result of the fixed exchange rate policy. Nevertheless, high rates of domestic inflation were only partly compensated for through exchange rate depreciation in the other two countries, thus also contributing further to the worsening of unit labour costs.

¹² In part, the reported rise in Indonesia is the result of changing definition of the period of job search for purposes of defining unemployment.

¹³ The one exception appears to be construction in Thailand where real wages grew at almost half the rate of those in other sectors (data not shown in the table). This might be explained by the influx of migrant workers from Myanmar (Burma), Laos and Cambodia into sectors which employed a high proportion of unskilled workers.

¹⁴ Following Mazumdar (1993) Changes in unit labour costs (U) are defined as : $U = W/V \times 1/e$ where W are wages per worker, V denotes productivity per worker and e represents the nominal exchange rate (domestic currency). From this equation we can derive the relationship: $dU = dW - dV - de$. This can be expressed as $(dW-dV) + (dP_c - dP_p) - de$ where P_c are domestic consumer (non-tradable) prices and P_p are international producer prices.

IV. ECONOMIC CRISIS AND LABOUR MARKET OUTCOMES

Despite rapid economic growth discussed above, there were some warning signs that all was not well in the three countries. First, the real exchange rate appreciated in all three countries in the mid 1990s. Domestic prices increases had largely offset gains in competitiveness arising from the slight depreciation of the nominal exchange rate during the 1990s. To some extent, this was a result of rapidly rising real wages and extremely tight labour markets, although the boom in real estate and construction also played a part. Second, a range of financial sector indicators suggested that there was a mounting problem of vulnerability (Athukorala and Warr, 1996).¹⁵ One of those indicators, the ratio of short-term debt to total debt is shown in Table 2.

As is well known, the financial crisis began ('officially') on July 3 with the run on the Thai baht and subsequent floating of that currency. The general impact on macroeconomic stability has been much discussed in various books and papers.¹⁶ For the purposes of this paper only a few of these developments need to be highlighted:

- The unprecedented depreciation of exchange rates created major problems for the economy, and even the much more profitable tradable sector owing to a general shortage of credit for working capital in the immediate wake of the crisis. Although one of the last economies to feel the full impact of the crisis, Indonesia was very much worse off in terms of macroeconomic instability (dramatic depreciation, very high inflation and interest rates; see Table 3).
- Output in tradable goods industries, especially manufacturing plunged, making a sizable contribution to the fall in GDP (Table 7). Agricultural growth was also slow in all three countries, although the crisis was only partly to blame. Similarly, Table 2 above shows that the value of exports also fell, despite the depreciation. The fall in imports, by around 30-35% in each of the three countries, was huge in 1998, given that imported raw materials and capital had been a central element in economic growth over the previous two decades.
- Despite much greater macroeconomic instability, trends in real economy were small in Indonesia compared with Korea and Thailand during the worst year of the crisis (1998). Thus, similar trends were experienced in all three economies in both in tradables and in the non-tradable, service sector. The construction sector contracted most in all three countries as the government budget was cut back. However, the sharp fall in GDI/GDP and in FDI were special features of the Indonesian crisis.

The Labour Market Response

¹⁵ Athukorala and Warr (1999?) mention reserve adequacy, short-term debt, private sector credit to GDP, real exchange rates and the current account deficit as several important indicators.

¹⁶ See especially Radelet and Sachs (1998) and McLeod and Garnaut (1998).

How did labour markets respond to the crisis? As noted in the introduction, two quite different immediate adjustments were possible, although there was likely to be some mix of each. Firms could either adjust to the sharp cut back on production by reducing employment or they could adjust by cutting wage rates – a quantity versus a price response. As noted in section 2 above, a subsequent outcome might be the re-absorption of many the displaced workers at lower wage rates elsewhere in the economy or, alternatively, inflexible wages and high levels of unemployment. Thus levels of unemployment depend partly on the immediate response of employers directly affected by the crisis, as well as the longer-term response of other firms, and displaced workers, to higher levels of involuntary unemployment.

The Asian Development Bank provides information on net job losses in 1998. Absolutely, they were largest in Indonesia, then Korea and finally Thailand, although as a proportion of employment in 1997 there was much less difference between the three economies.¹⁷ In Indonesia, manufacturing sector job loss was disproportionately large, whereas it was quite small in Thailand, where the service sector and construction bore the brunt of layoffs. In all countries the overall decline in employment was smaller than in output, suggesting that wage adjustment was one avenue of managing adjustment to the fall in labour demand.

Information on unemployment and labour force participation, changes in employment and wages throw further light on these issues (Tables 8-10 and Figure 1).

- *Unemployment and Participation Rates.* First, unemployment, rose much more steeply in Korea than in the other two countries. The data suggest that a high proportion of workers who were laid off remained unemployed a year after the crisis broke in 1997 (Table 8). Labour force participation also fell, mainly among females and young workers in Korea, contributing to quite a steep decline in employment rates from 1996.

A similar pattern is observed in Thailand, even though unemployment rose less. Thus overall employment fell in 1996-99, but not as precipitously as in Korea (Table 7). But the case of Indonesia was slightly different. Unemployment rates rose by a smaller proportion than in the other two countries, and labour force participation rates actually rose.¹⁸ Consequently there was no significant change in employment rates and the overall employment rose at similar rates (around 2.0% per annum) as in the previous six years.

- *Tradables and Non-Tradables Employment.* Second, perhaps surprisingly, jobs continued to expand in some non-tradable goods industries such as services, albeit slowly in 1996-99 (Table 9). As was to be expected, employment fell sharply in construction in all countries, but it also did so in manufacturing, particularly sharply in Korea and Indonesia and to a lesser extent in Thailand. But agricultural employment actually expanded in Indonesia quite rapidly (thus reversing the

¹⁷ See Asia Recovery Information Center, *ARIC Indicators* (<http://aric.adb.org/indicators>)

¹⁸ Unlike in Korea and Thailand, the data for Indonesia suggest a quite significant increase in the number of secondary workers.

downward trend of the previous decade), and fell much less than it had in the previous six years in Thailand.

Thus in general, as with trends in output, there was no clear contrast in employment in tradable and non-tradable goods industries. Korea was much worse affected in terms of employment in tradable goods (mainly manufacturing) than the other two countries. Thailand experienced a much milder contraction in both tradable and non-tradable goods industries and whereas employment actually rose in both in Indonesia over the period 1996-99.

- *Wages* declined much more sharply in Indonesia compared with Korea and Thailand (Table 10). In part, this can be explained by unanticipated inflation in Indonesia in 1998. As with employment, wages fell most in manufacturing at the height of the crisis in 1998 in Korea, although they also declined more sharply than wages in all sectors in Thailand. Nevertheless, in both countries, real wages recovered remarkably quickly. By 1999, they were above their pre-crisis levels in both manufacturing and all sectors in Korea and Thailand and, although still well below pre-crisis levels, even showed a significant improvement in Indonesia.

The slump and then quite rapid recovery in Korea, in contrast to the large and deeper shock in Indonesia is more apparent from quarterly data during the crisis years (Figure 1)¹⁹ Real wages fell from the third quarter in 1997 in all countries. They stabilised by the first quarter of 1998 in Thailand and Korea but continued to fall through 1998 as inflation gathered pace during the political crisis in Indonesia. By the first quarter of 1999, wage recovery had already begun in Korea and was sustained in the third quarter, whereas there was no obvious trend in Thailand and a later slight recovery towards the end of 1999 in Indonesia.

- How did these trends in real wages affect unit labour costs? As might be anticipated, they declined in all countries over the crisis period 1996-99, thus contributing to an increase in international competitiveness, in contrast to rising unit labour costs in the pre-crisis period (see Table 6 above). The decline in exchange rates far exceeded the increase in relative prices (domestic consumer price increases compared with international producer prices), which had partly resulted from the large devaluation and associated supply bottlenecks. The decline in unit labour costs was most marked in Indonesia (a huge fall of 20 per cent per annum over the three year period), where the fall in wages was much greater than the adjustment of value added during the crisis period. But it was also substantial in Korea where wage adjustments were much smaller but value added per worker increased during the crisis, partly in response to the collapse of less efficient firms.

Thus to sum up, while quantity and price adjustments occurred in all three countries, there were important contrasts in the extent of each across countries. The main differences in employment and labour market experience were quantity adjustments

¹⁹ Since the data are not complete on a quarterly basis for all countries, we have chosen data which most closely represent first and third quarter developments based on labour force and wage surveys.

which resulted in the much higher unemployment rates in South Korea, marked by a sharp decline in employment in tradable goods industries. At the other extreme, quantity adjustment was manifested in intersectoral labour shifts in Indonesia, where total employment actually expanded during the worst year of the crisis. However, the price adjustment was quite severe in Indonesia and real wages fell much more sharply than in the other two countries. Adjustment in Thailand was somewhere in between these extremes. The contraction in employment was only severe in construction, and real wages fell less steeply than in Indonesia. But there was less sign of labour market recovery compared with Korea, despite significant improvements in macroeconomic indicators in 1999.

Why was there such a different pattern of employment and wage response across countries? A preliminary examination of trends by individual country suggests that there were important contrasts in the nature of the labour market response across countries. We turn to this subject through an examination of individual country experience.

V. INDIVIDUAL COUNTRY EXPERIENCE

How can we explain these contrasting patterns of labour market response. As suggested in section II, it is useful to think of the adjustment as related partly to differences in stage in economic development and partly in labour market and other institutions in each of the three countries. I look first at the case of the most advanced country, South Korea, then Thailand and finally Indonesia.

South Korea

As already noted, the most visible impact on the labour market in Korea was the steep rise in unemployment. Unemployment rates had doubled to over four per cent by mid 1998 and then almost doubled again to above eight per cent in the first quarter of 1999, before beginning to decline later in the same year. For the first time in almost two decades unemployment, which had been far below the level in many developed countries, rose to equal and even exceed slightly unemployment in industrialised countries in early to mid 1999 (OECD, 1999: 140).²⁰ In the context of unemployment trends in Asia, the increase in Korea was much greater than in any other East Asian country, and also considerably greater than in Mexico during the tequila crisis in 1994-96.²¹

Unlike the other two countries the government had already introduced an (un)employment insurance scheme several years earlier. By mid 1999, it was estimated that some 1.3 million unemployed received some form of assistance out of a total of approximately 1.5 million unemployed in 1999 (although quite a high proportion of the

²⁰ The rise in unemployment, like the economic crisis, was dramatically different to that in Japan, where unemployment rates had risen slowly although very steadily to surpass rates in Korea in 1994, increasingly through to 1997. However, whereas unemployment had risen to five per cent in Japan by the first quarter of 1999, it had jumped to eight per cent in Korea.

²¹ In Mexico, unemployment rates jumped to from four to seven per cent before falling back to five per cent in mid 1996 (OECD, 1997).

unemployed could not gain access to several programs such as the unemployment benefits scheme and the cost of the programs was expected to escalate in the year 2000).²²

Not only were people thrown out of work, but also participation rates fell, especially among women and young people, as job opportunities dried up and secondary workers withdrew from the labour force. Employment rates fell quite steeply among both males and females during 1998 – among males mainly because of rising unemployment and among females due to both falling participation rates and rising unemployment (Manning, 2000a).

As already mentioned, the large majority of jobs were lost in construction and manufacturing. It appears that a large share of layoffs (over 80 per cent) occurred because of bankruptcies and many of these were among small and medium firms (Australia. East Asian Analytical Unit, 1999: 227, 229). The service sector, which was increasingly dominated by professionals, was unable to take up the slack in the labour market, a role that this sector had performed in previous periods of crisis.

Finally, regarding equity, the crisis appears to have hit low income groups hardest. Although all groups showed a significant increase in unemployment, less educated, prime age, production workers, and especially household heads, were the chief casualties. Unemployment rates among those with middle school schooling or less rose from 1-2 per cent for most of the 1990s to 6-7 per cent by mid 1998 and closer to 10 per cent by early 1999. The share of unemployed family heads rose from 35 to 46 per cent in the same period.

Thus, the nature of unemployment in Korea seems to have moved much closer to the overall pattern among industrialised countries, where unemployment is much more directly associated with low income status, and is structural (OECD, 1999). As noted, this is also reflected in the loss of permanent jobs and a trend towards more casual and part-time work.

Thailand

In Thailand employment growth stalled by early 1998 and many workers were laid off, especially in the automotive and electronic industries and chemicals. Females and males were both adversely affected, the former mainly in construction and the latter in manufacturing. Surveys suggest, moreover, that small and medium enterprises were especially hard hit by the crisis (World Bank, 1999: 11).

These trends are evident in both employment and wage trends into 1999, despite signs of economic recovery.²³ Over the period 1997-99 (August through August), the labour

²². The ratio of benefit recipients to the total number of unemployed was only 13 per cent in June 1999 (Kim, Dong-Heon, 1999: 34-35). EIS contributions which had already doubled during the crisis would have to increase significantly if the benefit schemes were to remain financially viable in the future.

force and employment declined, falling in both 1998 and 1999. Significant number of females withdrew from the work force owing to the lack of job opportunities. There was a marked fall in labour force participation rates, which are typically very high in Thailand.²⁴ Women in particular have shown a tendency to withdraw from part-time work in agriculture on a seasonal basis and are likely to have done so partly because earnings were depressed, both due to slower demand for goods and services and a crowding of job seekers into more easy entry jobs.

Unemployment rose from one to 3.5% in 1997-98 (August) and to over 5% in February 1999. Under-employment also rose mainly in Bangkok and in industry, where many firms cut back on hours work in an attempt to survive the crisis. Although the rates of unemployment and under-employment were not high by international standards, the rates of change were significant especially in an economy where labour market change is difficult to measure in the large informal and agricultural sectors.

The depressed state of the labour market extended well into 1999, the third year of the crisis. Like in Korea, jobs in manufacturing began to grow again in 1999, especially in response to favourable incentives to export. However, construction employment remained well below figures recorded two years earlier. And unlike in Indonesia (see below), there was no marked expansion of agricultural employment, which might act to cushion the blow of the recession.

What happened to wages? Like in Korea (although much less than in Indonesia), Thai workers suffered a major fall in real wages during the first year of the crisis. Downward revision in nominal wages, combined with consumer price increases of close to 10% in the first 10 months of 1998, contributed to wage declines of around 10-15%, depending on the sector of activity.

Nevertheless, despite the projected quite severe recession in 1998, several factors helped to cushion the effect on labour markets and prevent unemployment rates from rising steeply. These included:²⁵

- Relatively flexible wages: many formal sector workers were reported to have taken cuts in nominal salaries, amounting to 20-40% in real terms.²⁶ Trade unions played even a smaller role than in Korea in blocking real wage declines or retrenchments. Adjustment (and sometimes non-payment) of annual bonuses were also a key mechanism through which labour costs were reduced (Lee, 1998).

²³ See especially Kittiprapas (1999), Paopongsakorn (1999) and World Bank (1999). Data on labour force, participation, unemployment and employment are taken mainly from the Labour Force Surveys (August round), 1996-1999.

²⁴ Female participation rates have long been among the highest in the world (67% of all women, and 61% in municipal areas, aged 15 and above were in the work force according to the August 1997 Round of the Labour Force Survey).

²⁵ See especially Chalamwong (1998) and Lee (1998).

²⁶ One survey conducted in December 1997 and January 1998 reported in Chalamwong (1998: 7) found that 21% of manufacturing firms and 28% of non-manufacturing firms reduced salaries and wages in response to the financial crisis.

- Initially, many wage workers returned to their home villages especially in the northeast, and engaged in agriculture and other non-farm activities, taking the strain off the capacity of the urban economy to absorb displaced workers, but putting additional pressure on the rural economy. Over half of an estimated total of 190,000 rural return migrants surveyed by the Department of Interior in January 1998 were concentrated in the Northeast and were estimated to contribute substantially to the 20% rise in unemployment (Lee, 1998).²⁷ At the same time, the labour force and employment data suggest that the shift to rural areas was temporary. Between 1997 and 1999 (August-August) employment in rural areas declined faster than in urban areas (by just under two per cent per annum).

There is no doubt that the crisis contributed to substantial hardship. The equity effects are less obvious, however. Kakwani (1998) suggests, controversially, that the crisis hit the poorest hardest, and affected lower income households most through a reduction in hours worked and hourly productivity, especially in areas such as the Northeast. Nevertheless, the impact on the incidence of poverty was much smaller than feared, increasing from just over 11% in 1996 to 12.7% in 1998. It is clear that middle class households were also badly affected by the cut-back in jobs in the modern sector.

Indonesia

The context of economic crisis in Indonesia was the extraordinary, and largely unexpected, turnaround in economic performance starting in the last quarter of 1997, and extending through most of 1998 to produce a year-on-year fall in GDP of 14%. Although conditions stabilised in 1999, the situation in Indonesia remained much less favourable than in any of the crisis countries at the onset of the new millenium.²⁸

Three aspects of the labour market response were remarkable in Indonesia, given the severity of the economic decline in 1998 (Manning, 2000b).

- There was greater female involvement in the workforce, as ‘additional’ (or primary) workers in 1998 and a small increase in 1999.²⁹
- As already noted, employment growth rates did not fall, despite the displacement of large numbers of workers beginning in the last quarter of 1997. Employment growth did slow in urban areas, to 3.3% in 1997–98 compared with rates of closer to 7% in years prior to the crisis, but recovered in 1999. Even in the depth of the crisis through 1998,

²⁷ Drought which had adversely agriculture throughout the region in 1997/98, had added to rural labour market pressures in the dry northeast in early 1998 (Chalamwong, 1998: 8-9). Unemployment had long been highest in the poorer North East Region. In February 1998, it had risen to over 8%, or 2.5 times the national average.

²⁸ See especially Tubagus (1999) and Hill (1999).

²⁹ This occurred even though there appeared to have been a significant number of ‘discouraged’ workers who left the labour force as a result of the crisis (Manning, 2000b).

there is no indication of the massive de-urbanisation and movement to the countryside that some commentators had predicted.³⁰

- Unemployment rose less than in Korea or even Thailand, only slightly in 1997–98—to 5.5% in August 1998 and then 6.4% a year later, from just under 5% a year earlier. However unemployment continued to grow during 1999 in Indonesia whereas it had already begun to decline in Korea.³¹

Given the huge change in relative prices in favour of tradables, one might have expected much more rapid growth in employment compared with non-tradables. By 1999, such a pattern had emerged in Indonesia. The most important development among tradables was a dramatic rise in employment in the agricultural sector, increasing on average by over five per cent per annum in 1997–1999, after contracting substantially in the period prior to the crisis. In addition to some spectacular increases in incomes in cash crop production outside Java, it also seems clear that there was some crowding back into agriculture Java-Bali, the latter in response to worsening employment conditions, especially during 1998.³²

Employment also grew in manufacturing, the other main tradable goods sector in 1997–99, although at a slower pace. Manufacturing had experienced a major initial decline in the tumultuous year of 1998 when exporters and importers were unable to take advantage of the extremely favourable exchange rate owing to disruption of input supplies and general uncertainty. It began to take workers on again, however, in 1999.

In contrast to tradable goods industries, employment in the major non-tradable goods industries was lower in 1999 than when the crisis broke in 1997. However, after employment contracted severely in 1998, there was some recovery in all sectors in 1999, except in construction where employment remained 20% lower than it had been two years earlier.

As in other East Asian countries, these aggregate changes hide important changes in the composition of production (Manning 2000b).³³ The large changes in relative prices opened up new opportunities for export among small and medium industries and domestic production in traditional industries replacing imports. Within non-tradables there was considerable informalisation of employment, as in Thailand. In the year of crisis in 1998, mainly informal, non-wage jobs rose in trade, transport and services in the towns and cities, whereas employment in similar activities fell in rural areas. Some

³⁰ There is no doubt that many single migrant workers, especially in construction and manufacturing, moved back to their villages in the early months of the crisis to wait for work (see, for example, Hardjono 1999). But at the same time little work was available in many villages, and higher incomes facilitated income sharing in the big cities.

³¹ As might be expected the unemployment pool now consisted of a much larger proportion of workers with previous job experience. In 1998, approximately 40% of all unemployed had worked previously (and in 1999 34%) compared with only 20% in 1997.

³² Bearing in mind that agricultural production grew only slightly, output per worker probably fell by around 10% overall in 1998.

³³ See especially Maurer (1999), Sandee et al. (2000), Hill (1999) and Jellinek and Rustanto (1999).

activities, such as petty trade, repair work and food stalls, absorbed more workers in towns and cities, but probably at lower levels of income.

The general pattern of wage increases, around 5% per annum, from 1990-97 reversed sharply in 1998, as adjustments nominal wages failed to keep up with rates of inflation. There was some recovery in 1999, as Indonesia experienced very slow rates of inflation, and workers sought to adjust nominal wages to restore the real value of wages. Nevertheless, real wages were still around 20% lower in August 1999 compared with two years earlier.³⁴ The decline in real wages was dramatic in both tradeable and non-tradeable goods sectors. They fell by close to 35% overall, and nearly 40% in manufacturing.³⁵ The declines were smaller in agriculture which experienced a smaller fall in output and expansion in employment, especially in 1998.

In sum, what was the impact of these labour market changes on poverty and income distribution? In Indonesia the social disruption partly, although not entirely, associated with these labour market changes was necessarily severe. As noted, the incidence of poverty rose although not nearly as steeply as predicted in several early studies (Lee, 1998). Like the Thais, Indonesians appear to have been a remarkable capacity to adapt to a sharp fall in income. This especially occurred through family support mechanisms and income transfers, in addition to shifts in employment structure and flexible wages discussed above. School enrolments barely fell during the first year of the crisis, although the decline in enrolments was greater in private schools, in poorer sub-districts and was especially marked among the bottom 40% of the population in terms of expenditure per capita.³⁶

VI. CONCLUSIONS

This paper has provided a preliminary overview of different labour market processes and outcomes associated with the Asian economic crisis in South Korea, Thailand and Malaysia. Regarding outcomes, it is suggested that labour markets were not as uniformly flexible as suggested in some of the works on East Asia adjustment. We argued that labour markets were least flexible in adjusting to the crisis in South Korea, paradoxically a country known for its labour market adaptability during the 30 year period of rapid economic growth. Conversely, they were much more flexible in Indonesia, a country well known for state intervention in strategic industries during the Soeharto era. Thailand

³⁴ The calculation of real wages using the consumer price index (CPI) as the deflator almost certainly understates the extent of real wage declines among lower income groups. The food component of the CPI in Indonesia is much smaller than in the typical basket of commodities consumed by unskilled wage workers.

³⁵ The decline in wages may have been partly the result of a redistribution of work among wage workers. For example, males on permanent wage contracts were often replaced by younger females employed on a casual basis (Skoufias and Suryahadi 1999).

³⁶ Data from surveys of academic year 1998/99 (made in July/August 1998) indicate that enrolments fell by less than two per cent nationally, at both primary and lower secondary levels. At the same time, as in Thailand, the government took specific actions which help protect poorer people from the worst effects of the crisis, including abolition of entry fees at primary level and allocation of scholarships to needy households.

appears to have been closer to Indonesia in terms of redeployment of displaced labour into new sectors, and its relatively low unemployment rates.

The main criteria for flexibility were rates of unemployment, deployment of workers to new industries and activities, and real wage flexibility. On all these scores, Korea demonstrated the least flexible labour market. Unemployment rates rose much more quickly and stayed higher than in Thailand or Indonesia. Real wages fell, but mainly for non-basic wage components. Third, output and employment appears to have been worst hit in the large tradable goods sector, despite the increased incentives for production of tradables during the crisis and in the post crisis period. In the case of Indonesia, labour was absorbed in agriculture and the urban informal sector, despite a huge fall in output in 1998 and continuing stagnation in 1999. Real wages also fell steeply, and it appears that many small scale producers, both in agriculture and in manufacturing were able to take advantage of a more favourable terms of trade in domestic currency following the depreciation.

What processes underpinned these different responses?. Although these have not been examined specifically in this paper, we suggest two may have been most important.

- A high proportion of Indonesians and Thais were employed in traditional sectors, where work sharing arrangements were common. Despite the crisis, many producers were able to adapt production and take on workers in new activities, shifting away from less profitable non-tradable goods or tradables, which were overly dependent on imports. In part, it should be concluded that this flexibility was related to the earlier stage of development of these two economies and especially Indonesia. The large agricultural and informal sectors provided a cushion for displaced workers or those facing a large decline in earnings.
- Wages were more flexible in both Thailand and Indonesia, partly related to the high proportion workers in these 'non-protected' sectors, and partly related to absence of an active trade union movement which oppose real wage adjustments in Korea. This set of factors relates to fundamental differences in labour market institutions between the three countries.

These conclusions are tentative and require further research. Information on employment and wages are limited except in Korea where quarterly (and even monthly) data are collected. More research also needs to be undertaken on the adjustment process in each country, including the institutional frameworks and government responses to the crisis. We should also mention that in a broader comparative international framework, the Korean work force adjusted quite quickly to changed economic circumstances. Although there were important differences in the adjustment process between the three countries, none faced major problems of employment and wage rigidity that have characterised some Latin American countries during structural adjustment.

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TABLE 1: KEY DEMOGRAPHIC, ECONOMIC AND SOCIAL INDICATORS ON THE EVE OF THE CRISIS (1997)

	Korea	Thailand	Indonesia	Middle Income ¹
POPULATION 1997				
Number (million)	46	61	200	2857
% Urban	83	21	37	49(74) ²
ECONOMIC INDICATORS				
<i>GNP (PPP)</i>				
Total (\$billion)	618	393	679	12345
Per capita (000)	13.4	6.5	3.4	4.3(7.6)
<i>GDP Share (%)</i>				
• Agriculture	6	11	16	11(8)
• Industry	43	40	43	37
Manufacturing	26	29	26	24(21)
• Services	51	49	41	52
Exports/GDP(%)	38	47	28	25(22)
Manufacturing share of exports	92	71	42	58(54)
LABOUR MARKETS				
<i>Employment Share(%)</i>				
• Agriculture	11.0	50.3	41.2	NA
• Manufacturing	27.2	12.9	12.9	NA
• Wage employment	63	30	65	NA
<i>Participation rate (%)</i>				
Total	62.2	74.8	63.3	NA
Female	49.5	67.4	44.1	NA
<i>Wages/Lab. Productivity (\$US/per annum)</i>				
Minimum wage	3903a	1083	241	NA
Average wages in Manuf.	15819	2705	1008	NA
Lab. Productivity in Manuf.	40916	19946	5139	NA
SOCIAL INDICATORS				
Secondary school enrolments ³ (%)	102	56	48	61
Life expectancy (yrs.)	72	69	65	69

1 Figures in brackets indicate upper middle income; 2. 1995; 3. 1996; 4. Index of average annual rates (June 1997=100), figures for both 1990 and 1995 in the first column.

Source: World Bank (1999) *World Development Indicators*, OUP, New York. Indonesia. CBS, *National Labour Force Survey 1997*; Thailand, NSO, *Report of the Labour Force Survey, August Round, 1997*. Korea, National Statistical Office, *Annual Report on the Economically Active Population Survey*, Seoul, 1997 and 1999.

TABLE 2: KEY INDICATORS OF ECONOMIC GROWTH 1990-1999

	1990-95 ¹	1996	1997	1998	1999
<i>GDP (% p.a.)</i>					
Korea	7.2	6.8	5.0	-6.7	10.7
Thailand	8.4	5.9	-1.8	-10.4	4.1
Indonesia	7.6	7.8	4.7	-13.2	0.2
<i>Industry Growth (% p.a.)</i>					
Korea	7.3	7.0	5.4	-7.5	13.0
Thailand	10.8	7.1	-2.7	-13.6	8.3
Indonesia	10.1	10.7	5.2	-15.1	1.7
<i>GDI/GDP (%)</i>					
Korea	37	38	34	21	27
Thailand	41	42	33	26	27
Indonesia	28	31	32	19	12
<i>Export Growth (% p.a.)²</i>					
Korea	13	4	7	-5	10
Thailand	19	-2	4	-7	7
Indonesia	12	6	12	-11	-7
<i>Import Growth (% p.a.)²</i>					
Korea	12	12	-2	-36	29
Thailand	15	1	-13	-34	18
Indonesia	12	8	5	-31	-11
<i>FDI (\$ billion)</i>					
Korea	1.0	2.3	2.8	5.1	n.a.
Thailand	2.0	2.3	3.7	7.0	n.a.
Indonesia	2.1	6.2	4.7	-0.4	n.a.
<i>Short-debt as % all debt³</i>					
Korea	34		52	41	29
Thailand	39		40	40	33
Indonesia	19	34	33	23	Na

1. 1990-95 period average. 2. Growth in merchandise export/import values

3. Annual averages.

Sources: Asian Development Bank, *Key Indicators of Developing Asian and Pacific Countries*, 1999 and *Asian Development Outlook 2000*, OUP, New York; World Bank (1999), *World Development Indicators*, OUP, New York.

TABLE 3: PRICE CHANGES 1990-1999, KOREA, THAILAND AND INDONESIA
1990-1999

	1990-95 ¹	1996	1997	1998	1999
<i>Nominal exchange rate (index)</i> ²					
Korea	88-95	100.0	118	174	148
Thailand	101-98	100.0	124	164	149
Indonesia	79-96	100.0	124	428	335
<i>Consumer Prices (av. % increase p.a.)</i> ³					
Korea	6.1	4.9	4.5	7.5	0.8
Thailand	4.6	5.9	5.6	8.1	0.3
Indonesia	8.8	7.9	6.6	58.5	20.5
<i>Real Exchange Rate (index)</i> ⁴					
Korea	99-99	104	99	78	87
Thailand	83-87	95	89	78	81
Indonesia	87-88	96	92	46	66
<i>Interest Rate (annual average %)</i> ⁵					
Korea	13.7	12.4	13.2	15.0	5.0
Thailand	8.6	9.2	14.6	13.0	1.8
Indonesia	11.8	14	27.8	62.8	23.6

1. Change from 1990-1995 (indexes) or 1990-95 period average. 2..An increase denotes depreciation.

3. Consumer prices, 1990-95 period average.

4. International wholesale prices, domestic consumer prices (1996=100).

5. Daily inter-bank rate; first column for 1991-95 (period average)

Source: World Bank (1999), *World Development Indicators*, OUP, New York.
Indonesia; Asian Development Bank, *ARIC Indicators*, Asia Recovery Information Centre, Manila; International Monetary Fund, *International Financial Statistics*, various numbers.

TABLE 4: LABOUR MARKET DYNAMICS, 1990-1997¹

	Korea	Thailand	Indonesia
Labour Force Growth (% p.a.)	2.2	0.8	2.0
<i>Employment Share (%)</i> ¹			
Agriculture	18-11	64-50	56-41
Industry	35-31	14-20	14-19
Manufacturing	27-21	10-13	10-13
Services	47-58	22-30	30-40
<i>Unemployment Rate (%)</i>			
1990	2.4	2.2	2.6
1997	2.6	0.9	4.7
<i>Growth in Real Wages (% p.a.)</i> ²			
All Sectors	6.2	6.6	5.7
Manufacturing	n.a.	7.9	5.0

Notes: Data for Korea for full year; for Thailand August round of the Labour Force Survey; for Indonesia average of four quarters in 1990 and August from mid 1990s onwards (National Labour Force Survey only conducted once annually from mid 1990s).

1. Share at the beginning and end of period. 2 All data at constant 1993 prices.

Sources: ILO Yearbook of Labour Statistics, various years; Thailand NSO, National Labour Force Survey, August Round 1990 and 1997; Indonesia: CBS, National Labour Force Survey, 1990 and 1997. Korea, KLI, Quarterly Labour Review, various numbers.

TABLE 5: GROWTH RATE IN AVERAGE EARNINGS,
KOREA, THAILAND AND INDONESIA,
1991-1996 (1995 prices)¹

	Korea	Thailand	Indonesia
<i>Tradables</i>			
Agriculture	nd.	7.2	6.1
Manufacturing	6.9	7.8	6.9
<i>Non tradables</i>			
Trade/Services ²	5.4	6.7	5.3
All Sectors	6.7	7.0	6.4

nd.= No data

1 Data for Korea and Indonesia refer to annual averages,
and average of February and August quarters in Thailand.

2 Trade in Korea, Services in Thailand and Indonesia

Source: Indonesia. CBS, *National Labour Force Surveys*, 1991
and 1996; Thailand, NSO, *Labour Force Survey*, February and August
Rounds, August and September; Korea. NSO, *Monthly Labor Survey*, (annual
averages, various numbers)

TABLE 6: TRENDS IN UNIT LABOUR COSTS IN MANUFACTURING IN KOREA,
THAILAND AND INDONESIA, BEFORE AND DURING THE ECONOMIC CRISIS

	1990-96			1996-1999		
	Korea	Thailand	Indonesia	Korea	Thailand	Indonesia
Change in (% p.a.):						
Relative Prices(dC-dP)	4.5	3.6	7.1	4.4	4.8	23.8
Wage/value added per worker (dW-dVa)	1.2	5.0	-0.2	-6.1	1.7	-7.7
Exchange rate (1/e)	-2.7	-0.2	-3.8	-10.0	-12.7	-36.3
<i>Unit Labour Costs</i>	2.9	8.3	3.1	-11.7	-6.2	-20.2

Sources: Source: Indonesia. CBS, *National Labour Force Surveys*, 1991 and 1996; Thailand,
NSO, *Labour Force Survey*, February and August Rounds, August and September; Korea. NSO,
Monthly Labor Survey, (annual averages, various numbers). IMF, *International Financial
Statistics*.

TABLE 7: GROWTH OF VALUE ADDED BY INDUSTRY, KOREA, THAILAND
AND INDONESIA 1990-1999 (constant prices)

	Share 1996	Annual Growth Rates (%)				
		1990-96	1996-99	1997	1998	1999
Korea						
Agriculture	6.0	1.8	0.9	4.6	-6.3	4.7
Manufacturing	29.4	7.5	1.8	6.6	-7.2	6.8
Services	64.6	7.5	3.7	4.3	-5.2	13.0
<i>Total</i>	100	7.1	3.0	5.0	-5.8	10.7
Thailand						
Agriculture	10.6	3.6	1.0	1.4	1.0	0.5
Manufacturing	31.4	9.8	0.4	0.2	-9.1	11.1
Services	58.0	7.6	-3.3	-1.1	-9.2	1.0
<i>Total</i>	100	7.7	-1.6	-0.4	-8.0	4.1
Indonesia						
Agriculture	15.4	3.1	0.8	0.7	1.1	0.7
Manufacturing	24.7	10.6	-1.8	6.4	-12.8	2.2
Services	59.9	7.7	-4.8	5.4	-17.2	-0.8
<i>Total</i>	100	7.5	-3.1	4.9	-13.4	0.2

Sources: *Key Indicators of Developing Asian and Pacific Countries*, 1999 and *Asian Development Outlook 2000*, OUP, New York;

TABLE 8: LABOUR FORCE PARTICIPATION, UNEMPLOYMENT AND EMPLOYMENT RATES, KOREA, THAILAND AND INDONESIA, 1996-1999 (%)

	1996	1997	1998	1999
Korea				
Labour force participation ¹	62.0	62.2	60.7	60.5
Unemployment rate	2.0	2.6	7.3	6.7
Employment rates ²	60.7	60.6	56.5	56.7
Thailand				
Labour force participation ¹	69.3	69.2	68.1	67.8
Unemployment rate	1.6	1.6	4.3	4.4
Employment rates ²	68.0	68.0	65.2	64.8
Indonesia				
Labour force participation ¹	66.9	66.3	67.0	67.2
Unemployment rate	4.9	4.7	5.5	6.4
Employment rates ²	63.7	63.3	63.3	62.9

Note: Korea: average of four quarters; Thailand average for February(slack) and August (busy) seasons. Indonesia annual survey (August).

1 Labour force participation rates

2 Employment rate= (total employed/ working age population)*100.

Sources: See Table 4 (for years 1996-1998).

TABLE 9: EMPLOYMENT DYNAMICS BY MAJOR INDUSTRY, KOREA ,
THAILAND AND INDONESIA, 1990-1999

	Share 1996 (%)	Growth (% p.a.)		<i>Index (1996=100)</i>			
		1990-96	1996-99	1996	1997	1998	1999
Korea							
Agriculture	18	-5.0	-0.8	100	97	101	98
Manufacturing	27	-0.8	-5.2	100	96	83	86
Construction	7	6.3	-7.8	100	102	80	79
Services	48	5.2	1.8	100	105	103	106
<i>All Sectors</i>	100	2.3	-0.8	100	101	96	98
Thailand							
Agriculture	64	-3.4	-0.2	100	101	99	99
Manufacturing	10	5.4	-0.2	100	100	98	99
Construction	3	12.5	-20.7	100	94	63	54
Services	23	5.4	2.4	100	101	103	108
<i>All Sectors</i>	100	0.7	-0.6	100	100	97	98
Indonesia							
Agriculture	56	-1.9	1.8	100	95	108	106
Manufacturing	10	5.6	2.9	100	104	94	109
Construction	3	10.2	-3.3	100	111	93	91
Services	31	5.7	2.4	100	107	105	107
<i>All Sectors</i>	100	2.0	2.0	100	102	104	106
<i>Tradables/Non Tradables</i>							
Korea							
Tradables	45	-2.3	-5.8	100	96	89	90
Non Tradables	55	5.3	-0.2	100	104	100	102
Thailand							
Tradables	74	-1.8	-0.2	100	101	99	99
Non Tradables	26	6.5	-1.2	100	99	95	96
Indonesia							
Tradables	66	-0.5	2.1	100	97	105	106
Non Tradables	100	6.1	1.8	100	107	104	106

Notes: Growth rate for Indonesia 1990-1996 includes East Timor, Ages 10 and above;
All other data excludes East Timor, ages 15 and above. Growth rate for Thailand 1990-
1996 for August round of the Labour Force Survey, all other data average of August and
February rounds. Korea data annual average

Sources: See Table 4.

TABLE 10: REAL GROWTH OF AVERAGE WAGES IN
MANUFACTURING AND ALL SECTORS, KOREA, THAILAND AND
INDONESIA, 1991-1999¹

	Growth (% p.a.)		<i>Index (1996=100)</i>			
	1991-96	1996-99	1996	1997	1998	1999
Korea²						
Manufacturing	6.9	1.2	100	101	91	104
<i>All Sectors</i>	6.7	4.1	100	107	107	113
Thailand						
Manufacturing	7.8	1.2	100	108	103	104
<i>All Sectors</i>	7.0	1.4	100	106	105	104
Indonesia						
Manufacturing	6.9	-8.3	100	106	66	78
<i>All Sectors</i>	6.4	-6.1	100	104	69	83

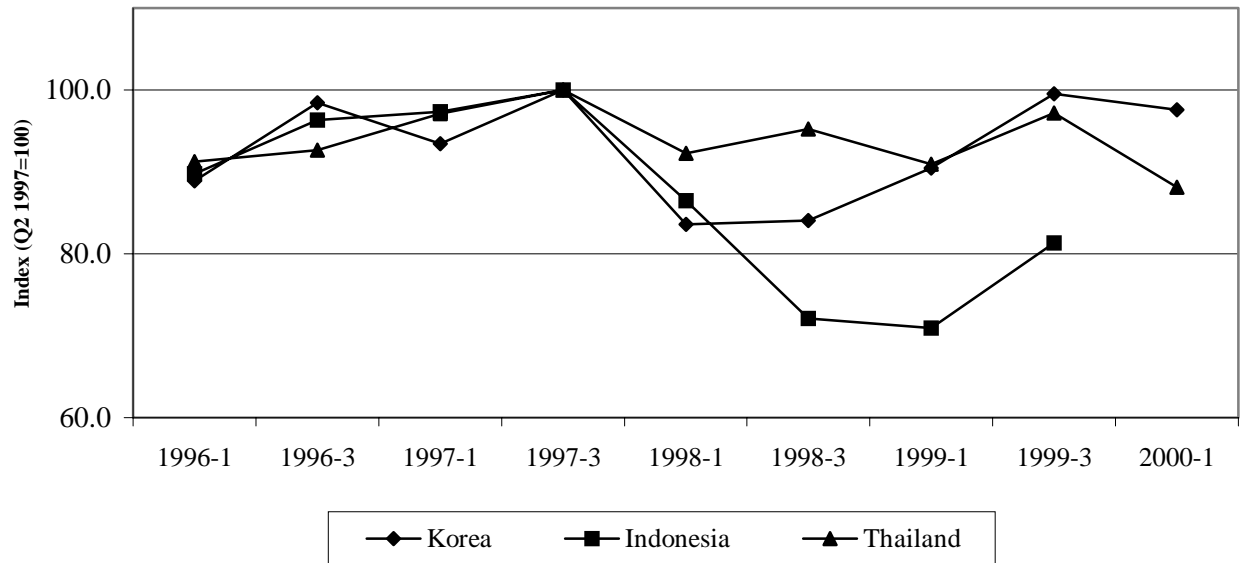
1 All nominal average wages deflated by the CPI in each country.

2 Data for regular employees, to third quarter 1999. For 1991-1996 data are taken from NSO, *Major Statistics of the Korean Economy* (monthly). For 1996-1999 data are taken from the Korean Labor Institute, *Quarterly Labor Review*, 12(4), page 8.

Source: Indonesia: CBS, *National Labour Force Surveys*, 1991-1999.

Thailand: NSO, *Labour Force Survey*, February and August (average of two rounds), various years. Korea: NSO, *Major Statistics of the Korean Economy* (monthly) and The Korean Labor Institute, *Quarterly Labor Review*, 12(4), page 8.

**Figure 1: Real Wage Adjustment in Manufacturing During the Crisis,
Korea, Thailand and Indonesia, 1996-2000**



Sources: Indonesia. CBS, Quarterly Wage Survey, first and third quarters, 1996-99.
Thailand, NSO, *Labour Force Survey*, February and August rounds 1996-99, various years.
IMF, *International Financial Statistics*, various months (for Korean wage data and trends in the CPI).